

*Solar Photovoltaic System Permits  
and Solar Heating Systems For Pools*

**PURPOSE**

To establish a procedure for the issuance of permits and calculation of permit fees for solar photovoltaic systems that are mounted on the roof or mounted on the ground and for solar heating systems for swimming pools.

**GENERAL**

Roof mounted solar photovoltaic systems generally require an electric permit and solar heating systems for swimming pools require a plumbing permit. If these systems are mounted on the ground, a building permit is also required for the support system and depending upon the height and other factors, engineering may also be required.

**A. Required Documents for Solar Photovoltaic Systems**

Completed application for a building permit (B-Bld) and four (4) copies of the following documents:

1. Location and site plans.
2. Detailed System Diagram of all the system components, highlighting system grounding and bonding.
3. Basic Line Drawing that shows all the devices on the system including the solar module, DC disconnect, inverter, sub-panels, AC disconnect, main service meter, and wire sizes and connections. Specify manufacturer, model numbers, and ratings.
4. PV Module Label and Listing Specs.
5. Inverter Label and Listing Specs.
6. Rack Label and Listing Specs.
7. Rack Mounting Details and Calcs (Ground Mounted Systems).
8. Battery Storage Location and Venting (if applicable).
9. Two additional (2) copies of site plan and floor plans if system is mounted on ground and property is on septic.

**B. Required Documents for Solar Heating Systems for Swimming Pools**

Completed application for a building permit (B-Bld) and four (4) copies of the following documents:

1. Location and site plans.
2. Manufacturer's specifications for panels and installation instructions.

Applicants for both systems shall be referred to the Plan Check Cubicle to determine if an "over-the-counter plan check" can be completed and if a site review is required. If a site review is required, the site review may be conducted at the first inspection.

**FORMS**

Building permit application form (B-Bld).

**PROCEDURE**

**A. Roof Mounted Systems**

Roof mounted systems placed on existing buildings require plan check approval which can typically be done at the plan check cubicle if the applicant has submitted a completed package. **Zoning and well and septic approvals are not required for these systems.**

Fees for roof mounted systems are calculated as follows. The plan review fee should be charged at one hour of the current plans examiner hourly rate. The required permit for this system is an electric permit and is calculated at two hours of the current building inspector hourly rate. The electric permit fee should be assessed as an additional fee using fee item 122 in Permits Plus. **NOTE:** Fees shown are valid through 6/30/10. Use current fee schedule.

Example:	\$ 138.00	plan review fee
	<u>268.00</u>	electric permit fee assessed as additional fee on fee item 122
Total:	\$ 406.00	

**B. Ground Mounted Systems**

Solar photovoltaic systems that are mounted on the ground are placed on a support system. They require a plan check review which may or may not be completed at the plan check cubicle. Support systems for ground mounted solar photovoltaic systems require additional documentation as well as additional plan check and inspection time. Ground mounted systems where any element of the array exceeds six (6) feet in height will require engineered wind uplift calculations.

Permits for the support system may, if necessary, be issued separately prior to the installation of the solar panels. Building permit fees for the support system will be based upon the contract price. The electric permit fees for the panels will be charged as for roof mounted systems. Because these systems are constructed on the ground they **require zoning and well and septic approvals.**

Fees for ground mounted systems shall be calculated as follows. The plan review fee should be charged at a minimum of two hours of the current plans examiner hourly rate. Current fees for zoning clearances and for well and septic field or office clearance should be charged. A building permit is required for the support system and is based upon the contract price of the work. The electric permit fee is calculated at two hours of the current building inspector hourly rate. The electric permit fee should be assessed as an additional fee using fee item 122 in Permits Plus. **NOTE:** Fees shown are valid through 6/30/10. Use current fee schedule.

Example:	\$276.00	minimum 2 hour plan review fee
	141.00	site review
	81.00	septic office clearance fee
	94.00	zoning clearance fee
	267.00	building permit fee for support system (\$5,000.00 contract price)
	<u>268.00</u>	electric permit fee assessed as an additional fee on fee item 122
Total:	\$1,127.00	

**C. Solar Heating Systems for Pools**

Solar water heating systems without storage and mounted on a roof, require plumbing permits. The fees for these permits are calculated as the fees for roof mounted solar photovoltaic systems. Solar water heating systems that include storage may require engineering as they can be much heavier. Permit fees for these systems will be calculated similar to ground mounted solar photovoltaic solar systems.

**Approved by**

*/s/ Pete Parkinson*

**Pete Parkinson, Director**

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